REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the foregoing amendments and the following remarks.

Claim Status

Claims 1 and 12 are amended. Claims 2, 3 and 13 are canceled. Claims 1, 4-12 and 14-18 are pending. No new matter was added. Support for the amendments to claims 1 and 12 may be found in canceled claim 2, on page 5, paragraphs 1 and 2 of the English specification, and in the examples contained within the English specification.

§103 Claim Rejections

Claims 1-12 and 14-18 stand rejected under 35 U.S.C. §103(a) as being anticipated by U.S. Patent Application No. 2004/0045897 (hereinafter Nakabayashi) in view of U.S. Patent No. 5,840,190 (hereinafter Scholander). Applicant traverses.

The Examiner claims that he has established a *prima facie* case of obviousness regarding claims 1 and 12 of the instant application. The MPEP § 2143 "Basic Requirements of a *Prima Facie* Case of Obviousness" states:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine references teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all claim limitations.

Regarding the third criterion, the court has stated that "to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicant contends that in light of the amendments to claims 1 and 12 the prior art references Nakabayashi and Scholander fail to teach, suggest, or provides a motivation for either a method for producing an integrally asymmetric membrane as described in the claim 1 of the instant invention or an integrally asymmetric membrane as described in the claim 12 of the instant invention.

Applicant has amended claim 1 to describe a method for production of an integrally asymmetric membrane with at least one separating layer and a supporting layer adjoining the separating layer, comprising the steps: a) preparing a spinning solution comprising a membrane-forming polymer and a solvent system; b) converting the spinning solution by means of a forming device into a shaped object with a first and a second surface; c) bringing the first or second surface into contact with a precipitant system comprising a polyelectrolyte with negative fixed charges, but no positive fixed charges, wherein the precipitant system is such that formation of a membrane results in having a separating layer on the surface; and d) washing and, if necessary, drying the membrane. Claim 1 also requires that the polyelectrolyte with negative fixed charges must have a molecular weight of greater than 7000 daltons and the polyelectrolyte with negative fixed charges is chosen from the group consisting of polyphosphoric acids, polysulfonic acids and polycarboxylic acids and that the polycarboxylic acids are partially cross-linked acrylic acids, copolymers of methacrylic acid and methyl

methacrylate, copolymers of acrylic acid and vinylpyrrolidone, or copolymers of acrylic acid, vinylpyrrolidone and lauryl methacrylate.

Applicant has also amended claim 12 to define an integrally asymmetric membrane with at least one separating layer and a supporting layer, characterised in that a polyelectrolyte with negative fixed charges, but having no positive fixed charges, is physically bound in the separating layer and that the polyelectrolyte with negative fixed charges has a molecular weight of greater than 7000 daltons. Claim 12 also requires that the polyelectrolyte is chosen from the group consisting of polyphosphoric acids, polysulfonic acids and polycarboxylic acids, and that the polycarboxylic acids are partially cross-linked acrylic acids, copolymers of methacrylic acid and methyl methacrylate, copolymers of acrylic acid and vinylpyrrolidone, or copolymers of acrylic acid, vinylpyrrolidone and lauryl methacrylate; and the integrally asymmetric membrane is characterised in that the supporting layer is free from polyelectrolyte.

Looking to the art cited by the Examiner in the currently pending office action, claims 1 and 12 are clearly patentable over Nakabayashi in view of Scholander. The Examiner relies upon Examples 1-8 from Nakabayashi as disclosing all of the elements of claim 1 of the instant application, except that Nakabayashi makes no use of polyelectrolytes, let alone a polyelectrolyte having a negative fixed charge, as is readily admitted by the Examiner on page 3, paragraph 4 of the current office action. Instead, Nakabayashi discloses the use of zwitterions which, contrary to the knowledge of those having skill in the art, the Examiner claims are readily interchangeable with

polyelectrolytes having a negative fixed charges. As stated above, claim 1 now requires that the polyelectrolyte with negative fixed charges must have a molecular weight of greater than 7000 daltons and the polyelectrolyte with a negative fixed charge is chosen from the group consisting of polyphosphoric acids, polysulfonic acids and polycarboxylic acids and that the polycarboxylic acids are partially cross-linked acrylic acids, copolymers of methacrylic acid and methyl methacrylate, copolymers of acrylic acid and vinylpyrrolidone, or copolymers of acrylic acid, vinylpyrrolidone and lauryl methacrylate. Nakabayashi is completely silent regarding any and all of the above requirements regarding polyelectrolytes.

Looking now to Scholander, it is clear that it too fails to disclose either a method for producing an integrally asymmetric membrane as described in the claim 1 of the instant invention or an integrally asymmetric membrane as described in the claim 12 of the instant invention and it also fails to make up for the deficiencies of Nakabayashi. Scholander passively mentions a single substance, polyacrylic acid on line 66 of column 4 as a surface modifying compound among dozens of other compounds used to increase the biocompatibility of membranes. One would be very hard pressed to convince a person having skill in the art that this one substance among dozens disclosed in a patent claiming surface modified membranes would be the obvious choice to replace the zwitterions of Nakabayashi to achieve a membrane type not contemplated by either Scholander or Nakabayashi. Additionally, Scholander is completely silent regarding polyelectrolytes with negative fixed charges having a molecular weight of greater than 7000 daltons being chosen from the group consisting

of polyphosphoric acids, polysulfonic acids and polycarboxylic acids and that the polycarboxylic acids are partially cross-linked acrylic acids, copolymers of methacrylic acid and methyl methacrylate, copolymers of acrylic acid and vinylpyrrolidone, or copolymers of acrylic acid, vinylpyrrolidone and lauryl methacrylate. The polycarboxylic acids, specifically the polyacrylic acid, mentioned in Scholander differ substantially in their polymer-chemical structure and consequently in their polymer-chemical behavior both from the class of partially cross-linked acrylic acids and from the three classes of copolymers disclosed in amended claims 1 and 12.

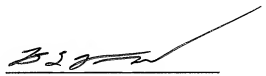
The prior art reference or combination of references relied upon by the Examiner must teach or suggest all of the limitations of the claims. See *In re Zurko*, 111 F.3d 887, 888-89, 42 U.S.P.Q.2d 1467, 1478 (Fed. Cir. 1997); *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art."). The teachings or suggestions, as well as the expectation of success, must come from the prior art, not applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). In this instance, from the information detailed above, it is clear that both Nakabayashi and Scholander fail to teach or suggest all the limitations of Applicant's claims. Accordingly, neither Nakabayashi nor Scholander disclose all of the elements of claims 1 or 12 and therefore, this rejection must fail. Thus, claims 1 and 12 are not obvious over Nakabayashi in view of Scholander and should be allowed.

In reference to claims 4-11 and 14-18, dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious. *Hartness Int'l, Inc. v. Simplimatic Eng'g Co., 819 F.2d 1100, 1108, 2 USPQ2d 1826, 1831 (Fed. Cir. 1987); In re Abele, 684 F.2d 902, 910, 214 USPQ 682, 689 (CCPA 1982); see also In re Semaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).* Thus, claims 4-11 and 14-18 are not obvious over Nakabayashi in view of Scholander and should be allowed.

Conclusion

In view of the foregoing, Applicant respectfully requests an early Notice of Allowance in this application.

Respectfully submitted,



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